



SPRING CREEK POWERPLANT



Spring Creek Dam and Powerplant



Spring Creek Dam and Powerplant

Plant Contact: Mike Ryan
Area Manager, Northern California Area Office

Plant Address: Redding Powerplant
Redding, CA 96003

Telephone Numbers: Phone: (916) 275-1554
Fax: (916) 275-2441

E-Mail Address: mryan@mp.usbr.gov

Reclamation Region: Mid-Pacific

NERC Region: Western Systems Coordinating Council, California-Southern Nevada Power Area

PMA Service Area: Western Area Power Administration, Sierra Nevada Region

Project Authorization: Funds for construction of the initial features of the Central Valley Project were provided by the Emergency Relief Appropriation Act of 1935 (49 Stat. 115). The Secretary of the Interior authorized the project and the President approved it on December 2, 1935.

The Shasta and Trinity River Division was authorized by Public Law 386, 84th Congress, 1st Session, approved August 12, 1955.

Project Purposes: The Central Valley Project, one of the Nation's major water conservation developments, extends from the Cascade Range on the north to the semiarid but fertile plains along the Kern River on the south. Initial features of the project were built primarily to protect the Central Valley from crippling water shortages and menacing floods. New project units were built to provide water and power to match the continued growth of the State.

Although developed primarily for irrigation, this multiple-purpose project also provides flood control, improves Sacramento River navigation, supplies domestic and industrial water, generates electric power, conserves fish and wildlife, creates opportunities for recreation, and enhances water quality.

Plant Location: Spring Creek Powerplant is located in Shasta County, California, on the Spring Creek arm of Keswick Reservoir near Redding, California.

Plant Facts: Spring Creek Powerplant is at the foot of Spring Creek Debris Dam. The dam is an earth-fill structure, 196 feet high with a crest length of 1,110 feet. Water for power is received through Spring Creek Tunnel which diverts water from Whiskeytown Lake on Clear Creek. Water from the plant is discharged to Keswick Reservoir.

Plant Purpose: Spring Creek Powerplant is a peaking plant. Its power is dedicated first to meeting the requirements of the project facilities. The remaining energy is marketed to various preference customers in northern California.

Plant History: These facilities were built and are operated by Reclamation. Transmission lines were operated by Reclamation until October 1, 1977, when they were transferred to the Western Area Power Administration, Department of Energy

Present Activities: Normal operations

Future Planned Activities: None

Special Issues: Spring Creek operation is tied to flow regimes aimed at minimizing the building of metal concentrations in the Spring Creek arm of the Keswick Reservoir. Trinity County has first preference to the power benefit of the Central Valley Project from Spring Creek Powerplant.

River: Spring Creek

Plant Type: Conventional

Powerhouse Type: Above Ground

Turbine Type: Francis

Original Nameplate Capacity: 150,000 kW

Installed Capacity: 180,000 kW

Year of Initial Operation: 1964

Age: 33 years

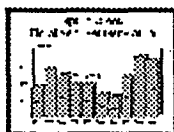
Net Generation: (FY 1996) 680,992,567 kWh

Rated Head: 566 feet

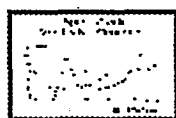
Plant Factor: (FY 1996) 43.2 percent

Remotely Operated: Yes

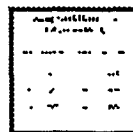
Production Mode: Peaking



Fiscal Year Net Generation



Monthly Net Generation



Generators



Workforce



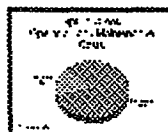
Wholesale Firm Rate



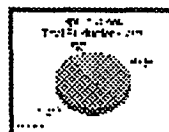
Operation Costs



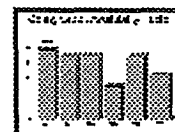
Maintenance Costs



O&M Costs



Production Costs



Availability Factor